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THE GENUS *HOPLISTOMERUS* MACQUART (DIPTERA: ASILIDAE)

By H. Oldroyd, M.A., F.R.E.S.

(*British Museum* (*Natural History*).)

(Read 4th June, 1940.)

Manuscript received 21st March, 1940.

With Five Text-figures.

The genus *Hoplistomerus* was placed by Hermann (1905 : 29 *et seq.*, and 1920 : 167–194) in the group [1] Prytaniini of the sub-family Dasypogoninae, a group erected to include the genus *Laphystia* and its allies, in which the first abdominal tergite is reduced, so that only six fully developed tergites are visible in the male. The group has also been discussed by Engel (1924 : 100 and 1928 : 246).

According to Hermann (1920 : 168) the three genera which have the hind femora very strongly swollen, and armed below with wart-like protuberances (fig. 2), may be separated as follows :—

1. Antennae elongate; third segment twice as long as the two basal segments together, without apical bristle, but with an apical pit which bears a style (fig. 1, b). Relatively larger species, with hair of mesonotum and abdomen in part recumbent, glistening, bright golden. Wings with brown cross-bands, and exceptionally blunt, short-stalked marginal cell (fig. 3) . . . . . *Hoplistomerus* Macquart.

[Genotype : *L. serripes* Fabr., by monotypy.]

Antennae relatively short; third segment little longer than two basal segments together, with a bluntly cylindrical style bearing an apical bristle . . . . . 2.

2. Marginal cell wide open; R_4 only weakly curved. Third antennal segment bare. Recumbent hair of mesonotum and abdomen in part bright, glistening, golden. Metatarsus of fore legs exceptionally short, scarcely longer than [one of] following tarsal segments, shorter than first segment *Triclioscelis* v. Röder.

[Genotype : *T. burmeisteri* v. Röder, designated by Hermann, 1920 : 183.]

Marginal cell closed on wing-margin; R_4 strongly curved, S-shaped, running steeply towards wing-margin; hind margin of wing wholly or partly lacking ambient vein. Third antennal segment hairy in middle, dorsally and ventrally. Mesonotum and abdomen without glistening, golden, recumbent pubescence. Metatarsus of fore legs not exceptionally short *Trichardis* Hermann.

[Genotype : *T. testacea* Herm., *nec* Macq., designated by Hermann, 1920 : 177 as *testacea* Macq.]

[1] Hermann, Engel and others call this group Prytaniin*ae*, but, being a division of a sub-family, it should clearly have the tribal ending *-ini* ; so should Eremocnemini and Acanthocnemini. This change has already been made by Bromley in several papers.

Hoplistomerus.[2]

Hoplistomerus Macquart, 1838, *Mém. Soc. Sci. Agric. Lille* **1838** (3) : 175, and 1838, *Dipt. exot.* **1** (2) : 59.
Hoplistomera Macquart, 1838, *opp. cit.* : 176 et 60, *et auctt.*
Genotype : *Laphria serripes* Fabr., 1805, by monotypy.

The generic characters of *Hoplistomerus* may be summarised as follows :—

Head as shown in figure 1, c. Face plane, covered with tomentum, and with rather long, downturned hair, especially thick at sides. Moustache merely a row of bristles along mouth-margin. Antennae placed close together, quite high on head, about as long as head is high; first segment longer than second, third about twice as long as first two together, somewhat clavate, with a pit and short style at apex; first two segments with rather stiff hairs, third segment bare. Proboscis prominent, about as long as head is high, with a keel

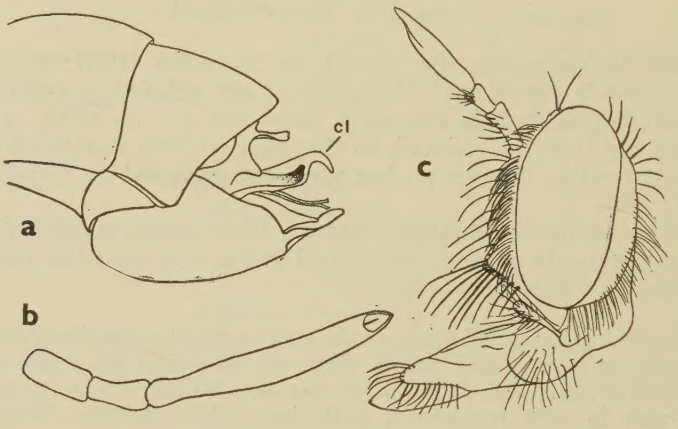

Fig. 1.—*Hoplistomerus nobilis* Lw. : a, male terminalia (cl = clasper); b, antenna, dorsal view; c, head in profile.

above, smoothly rounded below. Palpi cylindrical, or spindle-shaped. Occiput with numerous bristles on each side of vertex, which is rather broader than maximum breadth of an eye. *Thorax* largely covered with tomentum. Mesonotum usually has rather bare areas laterally, before and behind suture, and a large area in middle of meso- and sternopleura is bare and shining. Bristles yellowish, very short and stiff, consisting of a clump on each of the humeri, a row of six or seven supra-alars, and three or four postalars; in addition, *H. serripes* Fabr. and *H. engeli* sp. n. have one or more presuturals, and one stout mesopleural bristle immediately before base of wing. No scutellar bristles. Metapleuron has a tuft of long bristly hairs, and pro- and mesopleura have long, soft hair, while mesonotum is more or less covered with short recumbent hair, usually bright yellow, or white in colour. *Abdomen* stout, tergites strongly rounded. Six visible tergites in male, and a narrow strip of seventh tergite visible in female. Ground-colour black, brown or reddish, with pale segmentations, but colour usually obscured by a thick covering of recumbent hairs, golden-yellow or white. Each segment laterally with three or four stiff yellowish bristles. Stern-

[2] From ὁπλιστὴς and μέρος. ". . . le nom fait allusion aux épines qui arment les cuisses postérieures."—Macquart (1838 : 60).

ites shining, with very sparse hairs. Male terminalia very like those of *Laphria*, inverted, with ninth tergite undivided, boat-shaped, and almost enclosing rest of terminalia (fig. 1, a), claspers (styles of IX) prominent, differing sharply in different species, and providing a good diagnostic character. Ovipositor similar to that of *Laphria*, short, downturned, and mainly concealed; eighth sternite and tergite with clusters of stiff bristles, but without spines. *Legs* stout, all femora rather swollen, hind pair especially so (fig. 2). Hind femora ventrally with several wart-like protuberances, which may bear bristles at their tips;

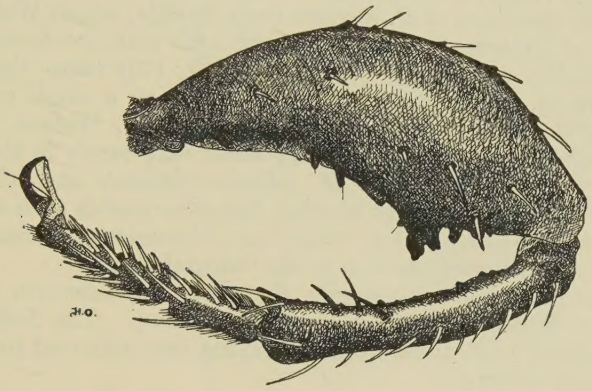

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FIG. 2.—*Hoplistomerus nobilis* Lw., left hind leg, in anterior view.

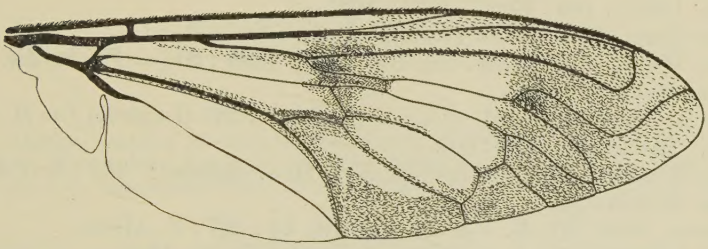

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FIG. 3.—*Hoplistomerus nobilis* Lw., right wing.

number and arrangement of these protuberances vary in different species, but are not sufficiently constant in one species to make a good specific character. Hind tibiae more or less strongly bowed, others straight. *Wings* as in figure 3. R_{2+3} curving through more than a right-angle near its tip, to meet R_1 just before costa. R_4 sharply bent forwards about its middle. First posterior cell usually long-stalked, sometimes barely closed on margin. Two cross-bands, one across each end of discal cell, usually very distinct, sometimes pale and scarcely visible. From these infuscation extends more faintly towards wing-tip and along hind margin. *Size.* Middle-sized to rather large flies (10–20 mm.).

I have given a somewhat full account of the generic characters in order that the specific descriptions may be condensed as much as possible.

Hoplistomerus is the most *Laphria*-like of the Prytaniini, and, indeed, I find its exclusion from the LAPHRIINAE difficult to justify in view, not only of the general facies of the genus, but of the structure of the head and of the male terminalia. Moreover, the mesopleural bristles upon which Hermann relies to distinguish the true LAPHRIINAE are found in two species of *Hoplistomerus*, as he himself points out (1920 : 178).

Loew (1860 : 118) refers to a small South American species of this genus, which Hermann (1920 : 179) considers to be a *Triclioscelis*. Macquart (1846) records a single specimen of *H. serripes* from Manilla, which Wulp includes in his Catalogue of Diptera of south Asia (1896 : 82) with the comment that the record is probably erroneous; Hermann (1920 : 179) takes the same view. There is, however, in the British Museum collection a single male *Hoplistomerus* bearing the label " Burma, coll. & pres. E. Y. Watson," which gives colour to the theory that the genus may occur very rarely in the East. The specimen very closely resembles *H. zelimina* Speiser, and of course it is possible that it has been wrongly labelled, but other genera such as *Hyperechia*, *Proagonistes* and *Neolophonotus*, which are characteristic members of the African fauna, have representatives in the Oriental Region.

Apart from these doubtful records, the genus *Hoplistomerus* is confined to the Ethiopian Region (including southern Arabia). The following species have been assigned to it, those in italics having been removed to other genera, or relegated to synonymy.

auriventris Loew, 1858, *Öfv. K. Vet.-Akad. Förh.* **14** : 356 [form of *H. serripes* Fabr., see below]; N. & E. Africa.
caliginosus Wulp, 1899, *Trans. ent. Soc. Lond.* **1899** : 90; Arabia.
cribratus Loew, 1858, *Öfv. K. Vet.-Akad. Förh.* **14** : 357 [= *Trichardis*. Hermann, 1908b : 166; Engel, 1924 : 108].
erythropus Bezzi, 1914, *Redia* **10** : 224; Italian Somaliland.
leucocomus Wulp, 1899, *Trans. ent. Soc. Lond.* **1899** : 90 [= *Trichardis*. From examination of type].
maculipennis Macquart, 1834, *Suites à Buffon* **1** : 285 (*Laphria*) [= *H. serripes* Fabr. Macquart, 1838 : 60].
nigrescens Ricardo, 1903, *in* Forbes, *Nat. Hist. Sokotra* : 362 [= *Trichardis*. From examination of type].
nobilis Loew, 1858, *Öfv. K. Vet.-Akad. Förh.* **14** : 357; S. Africa.
serripes Fabricius, 1805, *Syst. Antliat.* : 159 (*Laphria*); Africa.
testaceus Macquart, 1838, *Mém. Soc. Sci. Agric. Lille* **1838** : 179 and *Dipt. exot.* **1** (2) : 63 [=*Storthyngomerus*. Engel, 1924 : 106].
tridentatus Fabricius, 1805, *Syst. Antliat.* : 167 (*Dasypogon*) [Type of *Storthyngomerus* Hermann, 1919 : 337, by original designation].
zelimina Speiser, 1910, *Schwed. zool. Exped. Kilimandjaro*, **10** (4) : 92; Kilimandjaro.

To these must be added the three species (*engeli*, *miniatus*, *quintillus* spp. n.) described below, making a total of eight valid species.[3] Fig. 4 shows the distribution of these species according to the information I have at present.

[3] While this paper was in the press Dr. S. W. Bromley kindly sent me a single female from " British E. Africa," resembling *H. engeli*, but having the legs almost entirely orange. It is probably a variety of *engeli*. Dr. Bromley also states that he believes *Trichardis* to be a sub-genus of *Hoplistomerus*, a view which is supported by the somewhat intermediate character of the antennae of *H. caliginosus* and *H. engeli*.

Except where it is otherwise stated, all the specimens mentioned in this paper are deposited in the British Museum (Natural History). I am greatly indebted to Prof. G. D. Hale Carpenter for allowing me to borrow the types of

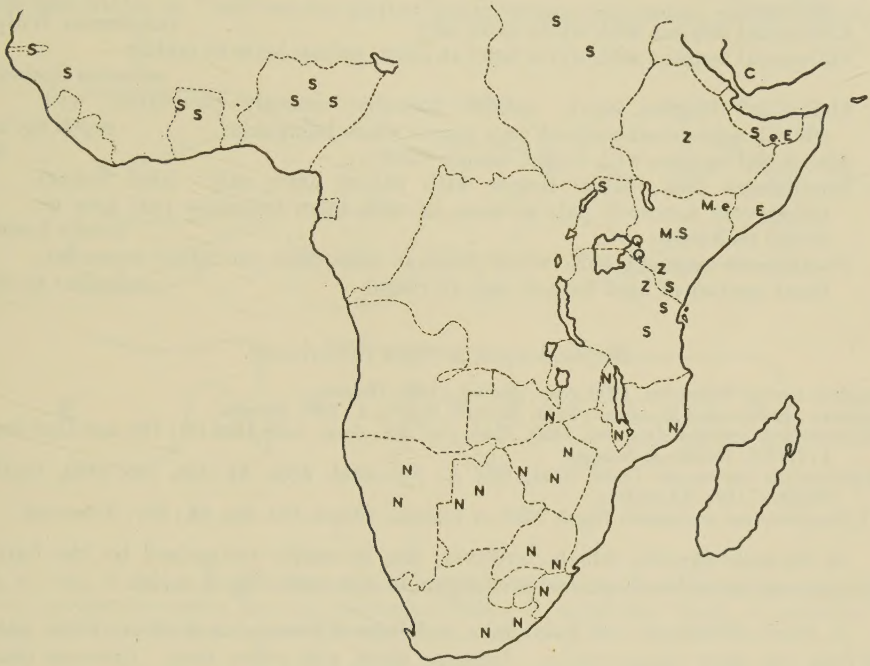

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FIG. 4.—Africa, south of the Sahara, showing distribution of *Hoplistomerus* : S = *serripes* Fabr.; N = *nobilis* Lw.; Z = *zelimina* Speis.; E = *erythropus* Bezzi; e = *engeli* sp. n.; C = *caliginosus* Wulp; M = *miniatus* sp. n.; Q = *quintillus* sp. n.

Hoplistomerus caliginosus Wulp and *H. leucocoma* Wulp from the collection of the Hope Department of Entomology, Oxford, and to Dr. B. M. Hobby for reading and criticising the manuscript.

Key to the species of Hoplistomerus *Macq.*

1. Prosternum with longish white hairs near middle . . . . . . 2.
   Prosternum with tomentum only . . . . 4.
2. Abdominal tergites with white hairs only . . . . *engeli* sp. n.
   Abdominal tergites with orange hairs . . . . 3.
3. Moderate-sized (13–16 mm.). Mesonotum and abdomen with hairs entirely yellow. Halteres brown. West African . . . . *serripes* Fabr.
   Larger and bulkier (20 mm.). Mesonotum and abdomen with white hairs laterally. Halteres pale yellow. East Africa *serripes* Fabr. form *auriventris* Lw.
4. Femora entirely reddish . . . . 5.
   Femora partly or wholly black . . . . 6.

5. Scutellum black . . . . . *erythropus* Bezzi.
   Scutellum reddish . . . . . *miniatus* sp. n.
6. Fore and middle femora yellowish or reddish below; hind femora pale at base, and possibly at tip . . . . . 7.
   Femora almost entirely black, hind femora possibly reddish or yellowish at base . . . . . 8.
7. Abdominal tergites with white hairs only . . . *caliginosus* Wulp.
   Abdominal tergites with white hairs at sides, yellow hairs in middle *zelimina* Speiser.
8. Abdominal tergites black, reddish laterally, coarsely punctured, with whitish segmentations, and very sparse white hairs only . *engeli* sp. n.
   Abdominal tergites with bright orange hairs . . . . . 9.
9. Penultimate (5th visible) tergite with yellow hairs only; hind femora either very narrowly pale at base, or with more extensive pale area on dorsal face only . . . . . *nobilis* Loew.
   Penultimate segment with white hairs at sides, like preceding segments; basal quarter of hind femora pale all round . . . *quintillus* sp. n.

Hoplistomerus serripes (Fabricius).

Laphria serripes Fabricius, 1805, *Syst. Antliat.* : 159; Guinea.
Laphria maculipennis Macquart, 1834, *Suites à Buffon*, **1** : 285; Senegal.
Hoplistomerus serripes Macquart, 1838, *Mém. Soc. Sci. Agric. Lille* **1838** (3) : 176, and *Dipt. exot.* **1** (2) : 60; Guinea & Senegal.
Hoplistomera auriventris Loew, 1858, *Öfv. K. Vet.-Akad. Förh.* **14** : 356, and 1860, *DiptF. Südafr.* : 119; Khartoum.
?? *Hoplistomerus auriventris* Engel, 1928, *in* Lindner, *Fliegen Pal. Reg.* **24** : 250; Transvaal.

A variable species, which, however, can be easily recognised by the hairy prosternum and the shape of the claspers in the male (fig. 5, a, b).

♂. *Head.* Moustache and facial hairs, and hairs of lower occiput silvery-white, hairs of frons and upper occiput yellow. Antennae black, with yellow hairs. Proboscis black with white hairs at base and yellow hairs at tip; palpi black with yellow hairs. *Thorax* entirely black, with white tomentum. Hairs of mesonotum entirely yellow; propleuron with white hairs, rest of pleura with yellow hairs. Mesopleuron with a single stiff bristle immediately in front of wing-base. Halteres dull reddish-brown. *Abdomen* black, only orange towards tip. Thickly covered with long, recumbent, bright orange hair, only at extreme base is there white hair laterally. Venter brown, shining. Terminalia dark brown, with yellow hairs which are distinctly longer than in other species. Claspers slender, scarcely bent at tip (fig. 5, a, b). *Legs* entirely black, except narrowly at knees on fore and middle legs. Coxae with white tomentum and white hairs, hairs and bristles yellowish on femora and hind tibiae, white on rest of legs. Hind tibiae with three prominent stout pale bristles on ventral face near apex. *Wings* normal.

Length of body 13–16 mm.; *of wing* 11–15 mm.

♀. Similar.

H. auriventris Loew was distinguished from *serripes* by its greater bulk, the presence of white hairs laterally on the mesonotum and abdominal tergites, the paler halteres, the rather clearer apex of the wing, and by having the three ventral bristles on the hind tibiae black instead of yellowish (Loew, 1860 : 119). East African specimens in the British Museum show some or all of these characters, while West African specimens are more nearly of the typical form of *serripes*; there is, however, considerable variation in both groups, and since the male terminalia show no noticeable differences, I regard *auriventris* Loew as a form of *serripes*.

H. serripes is represented in the British Museum by specimens from N. Nigeria and the Gold Coast (July to October), and *H. serripes* form *auriventris* by specimens from Tanganyika, Uganda, Kenya, the Sudan and British Somaliland taken in most months of the year. Engel (1928 : 250) records *H. auriventris* from the Transvaal,[4] but I am puzzled by his description of the male terminalia as " mit an der Spitze hakenförmig gebogenen, gelben Innen-

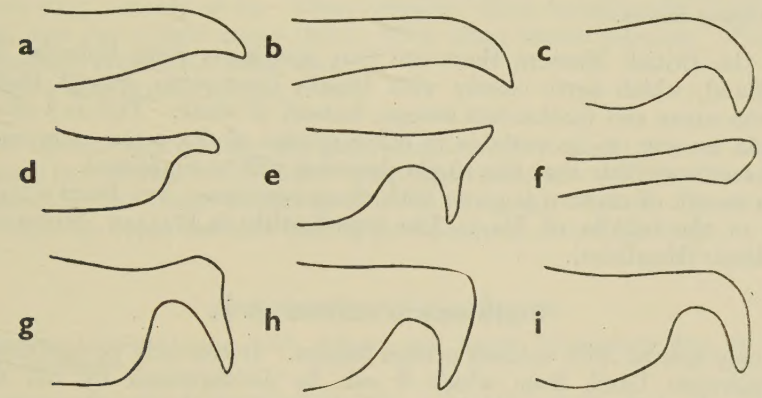

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FIG. 5.—Tip of clasper (style of IX) in males of *Hoplistomerus* species : a, *serripes* Fabr.; b, *serripes-auriventris* Lw.; c, *caliginosus* Wulp; d, *erythropus* Bezzi; e, *quintillus* sp. n.; f, *engeli* sp. n.; g, *zelimina* Speis.; h, *miniatus* sp. n.; i, *nobilis* Lw.

teilen." As will be seen from fig. 5, this would apply to almost any species of the genus except *H. serripes* and *H. serripes-auriventris*, and, indeed, Loew himself (1860 : 120) says of these structures : " . . . sie bei den beiden vorigen Arten [i.e. *serripes* and *auriventris*] von ziemlich gleicher Breite sind, und ihre Spitze nur sehr sanft abwärts gebeugt ist." The locality would suggest that Engel's species was *nobilis* Loew, were not the legs described as being completely black.

Hoplistomerus erythropus Bezzi.

Hoplistomerus erythropus Bezzi, 1914, *Redia* **10** : 224; Italian Somaliland.

A species distinguished from all others except the one described below by its entirely orange femora; from *miniatus* it differs in the blacker thorax—especially scutellum and pleura—and in the form of the male claspers (fig. 5).

♂. *Head* with hairs and bristles entirely pale yellow. Antennae orange, with yellow hairs. Proboscis black, palpi blackish at tip, brownish at base; both with yellow hairs. *Thorax* black; only reddish areas are large humeral spots, notopleural margins, postalar and metanotal callosities, and a narrow strip immediately in front of scutellum. Scutellum itself black, except at extreme base. Tomentum, hairs and bristles all yellow. Halteres

[4] Probably the same material is the basis for Hermann's record of this species from the Transvaal (1920 : 179). Hermann had previously (1905 : 169) recorded *H. auriventris* from Lehututu-Kgokong, in the Kalahari, but in view of the distribution of species shown in fig. 4 this record, too, must be regarded as very doubtful.

pale yellow. *Abdomen* orange, first four or five tergites brown or blackish anteriorly. Recumbent hairs sparse, yellow; only a few white hairs at sides. Venter brown, shining, Terminalia yellowish-orange, claspers abruptly pointed, not at all downturned (fig. 5, d). *Legs* entirely orange, from coxae to tips of tarsi, only claws black on apical half. Hairs white and bristles yellow. *Wings.* Infuscation paler and more diffuse than in most species of the genus, median hyaline area only including discal cell and narrow areas of adjoining cells.

Length of body 12 mm.; *of wing* 9 mm.

♀. Closely similar.

In the British Museum there are four specimens from Bohotle, British Somaliland, which agree closely with Bezzi's description, except that they have the coxae and trochanters orange, instead of black. This is a character that can be seen to be variable in other species of the genus—*e.g. zelimina*, and it seems unlikely that this single character will be significant.

No month of capture is given with these specimens, but Bezzi's type was taken in the middle of May. The type locality is Italian Somaliland: Mogadiscio (Mogdishu).

Hoplistomerus miniatus sp. n.

A pale species, with entirely orange femora. It can only be confused with *H. erythropus* Bezzi, from which it can be distinguished by the reddish scutellum, and the more extensive red colour of the thorax, the mesonotum having three black stripes on a red ground, and the pleura being entirely orange. The male terminalia, too, are very different (fig. 5, h).

♂. *Head.* Hairs and bristles white or pale yellowish. Antennae dull reddish, with yellow hairs. Proboscis black with white hairs at base and yellow hairs at tip; palpi blackish-brown, with yellow hairs below, black above. *Thorax* orange. Mesonotum with a broad, divided median black stripe and two short, broad lateral ones, each divided at the suture into two parts. Notopleural stripe and sides of prothorax black, rest of pleura and entire scutellum orange. Mesonotum with recumbent yellow hair in middle, extreme sides of mesonotum, and pleura with white tomentum. Halteres pale yellow. *Abdomen* orange, first three segments with a black basal band, interrupted in middle. Recumbent hairs yellow dorsally, white basally and laterally. Venter shining yellowish. Terminalia orange, claspers strongly hooked (fig. 5, h). *Legs* entirely orange from coxae to tips of tarsi; only trochanters may be edged with black. Claws black, yellow at base. Hairs all white, bristles all yellowish. *Wings* with usual bands of infuscation rather diffuse, not quite so extensive as in *H. erythropus*.

Length of body 14 mm.; of wing 12 mm.

♀. Similar. Hairs and bristles of head all yellow. Thorax entirely without black markings, but abdominal tergites a little blackish in middle.

Type ♂ Kenya Colony: Northern Frontier Dt., Juba R., Neboi, 9.ii.1922 (*Dr. J. O. Beven*).

Paratype ♀ E. Africa Protectorate: Guasa Nyiro R., between Chandler's Falls and Lorian Swamp, 20.iii.1912 (*F. C. Selous*).

Hoplistomerus caliginosus Wulp.

Hoplistomera caliginosa Wulp, 1899, *Trans. ent. Soc. Lond.* **1899** : 90; Arabia.

Nearly related to *H. zelimina* Speiser, from which the white hairs on the abdomen distinguish it.

♂. *Head.* Hairs and bristles white. Proboscis and palpi black. Antennae dark reddish, or blackish, especially towards tip; basal segments somewhat paler. *Thorax* reddish, only mesonotum blackish on posterior half. Tomentum, hairs and bristles pale yellowish-white. Halteres lemon-yellow, or reddish-brown. *Abdomen* black with yellow segmentations, lateral margins of all tergites more or less reddish. Recumbent hairs very short, and entirely white. Venter shining reddish-brown. Terminalia orange, claspers strongly curved downwards at tip (fig. 5, c). *Legs.* Coxae and trochanters reddish. Fore and middle femora black antero-dorsally, reddish postero-ventrally; hind femora black, reddish at base, and very narrowly at tip. Tibiae yellowish, black ventrally, and at tip. Tarsi reddish, hind pair a little darker above. Hairs white, bristles yellowish. *Wings* with usual markings present, but rather faint.

Length of body 13 mm.; *of wing* 10 mm.

The British Museum has one male specimen, from Lahej (one of the type localities) in October, which I have been able to compare with the two co-types deposited in the Hope Department of Entomology, Oxford. It should be noted that the types are both males, not females as stated by Wulp.

Hoplistomerus zelimina Speiser.

Hoplistomerus zelimina Speiser, 1910, *Schwed. zool. Exped. Kilimandjaro-Meru*, **10** (4) : 92; Kilimandjaro.

A species readily recognised by the coloration of the legs, the fore and middle femora having a black stripe above, and the hind femora being black on the apical half, at least dorsally. *H. caliginosus* Wulp has similarly marked femora, but has the recumbent hairs on the abdominal tergites entirely white. The coloration of the coxae and antennae seems to be variable; they may be black, as stated by Speiser, or more or less reddish.

♂. *Head.* Facial hairs white, bristles of moustache, and bristles and hairs of frons and occiput somewhat yellowish. Proboscis black, with white hairs at base, yellowish hairs at tip; palpi black, with brown or black hairs. Antennae black, or rather brownish, especially basal segments; hairs of antennae yellow. *Thorax* black, postalar calli reddish. Tomentum white, hairs pale yellowish, deeper yellow on hind margin of mesonotum and on scutellum. Halteres reddish-brown. *Abdomen* black with yellow segmentations, which are broader on posterior segments. Recumbent hairs yellow, but all segments with white hairs laterally. Venter and terminalia shining black; claspers strongly hooked at tip, more right-angled than in *nobilis* (fig. 5, g). *Legs.* Coxae black, or rather reddish, with white tomentum and hairs. Trochanters yellowish. Femora yellowish; fore and middle femora with a dorsal black stripe, hind femora with basal half yellowish, apical half black, at least dorsally. Tibiae yellowish dorsally, black ventrally, tarsi reddish. Hairs white, bristles yellowish. *Wings* normal.

Length of body 14 mm.; *of wing* 10 mm.

In the British Museum from various localities in Kenya and from Aruscha in Tanganyika, all at about 3000 ft., all the captures being made in April or May. The type was taken on Kilimandjaro on 24 March, and Hermann (1920 : 179) gave Abyssinia as a locality for this species, while Speiser (1924 : 118) said it was: "In der Steppe am Kilimandjaro entdeckt, ebenfalls in abessinisch-erythraeischen Gebiete zahlreich wiedergefunden."

Hoplistomerus engeli sp. n.

Hoplistomerus caliginosus Engel (*nec* Wulp), 1932, *Ann. Transv. Mus.* **14** : 257.

A black species with sparse white hairs on the abdomen. Allied to *H. caliginosus* Wulp, but distinguished by the entirely black femora.

♂. *Head.* Bristles and hairs pale yellow. Palpi black, with some brown hairs, proboscis black. Basal antennal segments shining dark brown, with white hairs, third segment blackish. *Thorax* black, postalar calli and areas of mesonotum surrounding humeri reddish. Tomentum white, hairs on pleura and sides of mesonotum white, most of mesonotal hair pale yellow, darker posteriorly, and on scutellum. Bristles pale yellow. Halteres pale yellow. *Abdomen* black with yellow segmentations, only indistinctly shining reddish towards sides and posteriorly. Strongly punctured with hairs entirely white, very short and sparse in middle of tergites, longer towards sides. Venter shining dark brown. Terminalia shining brown, of very distinct form, claspers pale yellow, long, slender, and curved upwards (fig. 5, f). *Legs.* Coxae black with white tomentum and white hairs. Trochanters shining brown. Femora entirely black. Tibiae yellowish dorsally, black ventrally and at tip, tarsi reddish or rather brownish; hind tibiae and tarsi darker than others. Hairs white, bristles yellowish. *Wings* with usual bands of infuscation very pale and diffuse, almost uniformly greyish, with brownish suffusions at proximal and distal ends of discal cell.

Length of body 15 mm.; *of wing* 12 mm.

♀. Similar; tomentum of pleura perhaps a little more yellow.

Type ♂ and 1 ♂, 2 ♀ paratypes Somaliland: Bohotle, 1903 (*Vety.-Maj. A. F. Appleton*); 2 ♀ paratypes Kenya Colony: Northern Frontier Dt., Juba R., Neboi, 6.vi.1922 (*Dr. J. O. Beven*).

The two females from Neboi were recorded by Engel (*loc. cit.*) as *H. caliginosus* Wulp, but by the courtesy of Professor G. D. H. Carpenter I have been able to compare them with Wulp's type. The entirely black femora alone are a sufficient distinction, besides the very different male terminalia (fig. 5).

Hoplistomerus nobilis Loew.

Hoplistomera nobilis Loew, 1858, *Öfv. K. Vet.-Akad. Förh.* **14** : 357, and 1860, *DiptF. Südafr.* : 120; Caffraria, Mosambique.

Hoplistomera serripes Loew, 1862, *in* Peters, *Naturw. Reise nach Mossambique* (Zool.) **5** : 10; Mosambique.

A species easily recognised by the white hairs laterally on the first four abdominal segments, and by the coloration of the legs, which are black, only the extreme base of the hind femora and a dorsal stripe on the tibiae and tarsi being pale. The male claspers somewhat resemble those of *caliginosus* and *miniatus* (fig. 5) which, however, have quite a different colour pattern on the legs.

♂. *Head.* Facial hairs white, bristles of moustache and upper occiput yellowish. Proboscis black with yellowish hairs at tip, white hairs at base; palpi black with yellow or brown hairs. Antennae black or slightly reddish, with yellow hairs. *Thorax* black, postalar calli reddish. Tomentum white, hairs pale yellowish, deeper yellow on scutellum and along hind margin of mesonotum. Halteres orange-stalked, yellow-tipped. *Abdomen* black with yellow segmentations, apical segments more or less extensively orange. Recumbent hairs bright orange, first four (visible) segments with white hairs towards sides. Venter shining brownish or blackish. Terminalia brown or blackish, with yellow hairs; claspers strongly hooked at tip (fig. 5, i). *Legs* mainly black. Hind femora dorsally at base, at least fore and middle tibiae above, and tarsi dorsally, yellowish; extent of pale coloration

very variable (*e.g.* the hind leg illustrated in fig. 2 has practically no pale areas). Hairs white, bristle yellowish. *Wings* normal.

Length of body 15–17 mm.; *of wing* 10–12 mm.

♀. Similar; legs perhaps less extensively reddish.

This appears to be the commonest and perhaps the most widely distributed species of the genus. A long series in the British Museum includes specimens from Cape Province, S.W. Africa, Natal, Bechuanaland, Portuguese East Africa, Transvaal, S. & N. Rhodesia, and Nyasaland, the dates of capture ranging from October to May. Loew includes in his type material the specimens from Mosambique which he had [5] recorded elsewhere as *L. serripes* Fabr., but Speiser (1910 : 92 *note*) states that only the January specimens are really *nobilis*, the others being a species of *Laxenecera*.

Hoplistomerus quintillus sp. n.

Very closely allied to *H. nobilis* Loew, from which it differs only in having white hairs at the sides of all the six visible tergites of the abdomen, in having the hind femora pale all round for the basal quarter of their length, and in the form of the claspers of the male (fig. 5, e).

Type ♂ BRITISH EAST AFRICA : Kenyamkago, Kisumu Province (*Dr. J. Pugh*).

Paratypes BRITISH EAST AFRICA : 2 ♂♂, Kaja Valley, S. Kavirondo, 4000 ft., 31.iv.–1.v.1911 (*S. A. Neave*); 2 ♂♂, Mara R., Masai Reserve, 11.xi.1914, 1 ♂, 1 ♀ Mogorr R., v.1913, and 1 ♀ BRITISH EAST AFRICA : Narok, 5600 ft., 1.iv.1914 (*Capt. A. O. Luckman*).

But for the sharp difference in male terminalia, I should regard this form as, at most, a sub-species of *H. nobilis* Loew.

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[5] The diagnoses of new species in Peters' collection were published in 1852 (*Ber. K. preuss. Akad. Berlin*, **1852** : 658–661), indicating that Loew worked out this material before writing his *Dipteren-Fauna Süd-Afrikas*. The full reports of Peters' expedition, including the record of *H. serripes*, did not appear until 1862, by which time Loew had already published his correction of this determination.

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